

Interim Report of the Professional Development Committee

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 Harrisburg, Pennsylvania

Reference
 Key Number

400 INTRODUCTION

The Professional Development Committees (hereinafter referred to as "Committee") submits its Interim Report for consideration by the National Conference on Weights and Measures (NCWM). This report contains the items discussed and actions proposed by the Committee during its Interim Meeting in Bethesda, Maryland, January 25 - 28, 2004.

Table A identifies the agenda items in the Report by Reference Key Number, Item Title, and Page Number. The item numbers are those assigned in the Interim Meeting Agenda. A voting item is indicated with a "V" after the item number. An item marked with an "I" after the reference key number is an information item. An item marked with a "D" after the reference key number is a developing issue. The developing designation indicates an item has merit; however, the item was returned to the submitter for further development before any action can be taken at the national level. An item marked with a "W" was withdrawn by the Committee and generally will be referred to the regional weights and measures associations because it either needs additional development, analysis, and input or does not have sufficient Committee support to bring it before the NCWM.

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**Details of All Items
(In Order by Reference Key Number)**

401 EDUCATION

401-1 I National Training Program

Source: NCWM Board of Directors

The NCWM Board of Directors established the Professional Development Committee at the 2003 NCWM Annual Meeting in Sparks, Nevada. The first critical charge to the Committee is to represent the NCWM in the development of a national weights and measures professional development program in cooperation with our partners:

- State and local weights and measures departments;
- Private industry at all levels from manufacturer to repair service; and
- Technical advisors from NIST Weights and Measures Division and Measurement Canada

Its scope embraces all matters dealing with, but in priority:

1. The education and professional development of weights and measures officials and the promotion of uniformity and consistency in the application of weights and measures laws and regulations;
2. The education of industry personnel with regard to weights and measures laws and regulations, including all areas from device manufacturer to service technician;
3. Quality standards for weights and measures activities and programs; and
4. Safety awareness for weights and measures-related activities.

The first critical charge should be to develop a firm partnership with the state and local weights and measures departments, private industry at all levels from manufacturer to repair service, and the National Conference on Weights and Measures. It is critical that NIST Weights and Measures Division and Measurement Canada be full partners and not just provide technical advisors.

Background: In 2002 the Professional Development (PD) Committee (formerly the A&P Committee) met with then Chairman Ross Andersen, who explained his vision for revising the National Training Program (see Appendix A). Mr. Andersen's vision included a horizontal, hierarchical approach to training, filtering out the common elements of general information applicable to a wide range of devices and including the most detailed information in courses for specific devices. The Committee developed an outline for this new training approach and provided the NCWM membership with its draft at the 88th NCWM Annual Meeting in July 2003.

The NCWM Professional Development Committee strongly supports the decision of the National Conference on Weights and Measures' efforts towards a National Training Program that will lead to a National Certification Program for weights and measures officials. We recommend the end product (National Certification Program) be determined first, so the curriculum can be developed to meet the needs of a certification program. To achieve this goal, the Professional Development Committee must be allowed to do its work for the National Conference on Weights and Measures and maintain focus to produce a National Certification Program.

Discussion: The training responsibility should fall directly on state and local jurisdictions. Administrator training should also be added to the curriculum. Consider looking outside the NCWM for training and structure.

401-2 I Professional Development

Source: NCWM Board of Directors

Develop a consensus on the necessary and uniform steps in an educational process to raise the professional status of weights and measures and related industry officials throughout the United States.

Discussion: California offered its support and the training material used in the state.

401-3 I Identify Partners

Source: NCWM Board of Directors

Identify appropriate roles for each of the partners (National Conference on Weights and Measures, state and local weights and measures departments, private industry at all levels from manufacturer to repair service, NIST Weights and Measures Division, and Measurement Canada) in implementing an educational process.

Discussion: The development of a training program should follow the steps below:

1. Study training programs of outside agencies, as well as those of state and local jurisdictions.
2. Establish knowledge goals for weights and measures officials and administrators.
3. Develop exams or tests.
4. Develop curriculum based upon the findings and results of the steps 1 - 3 above.

401-4 I Create a Curriculum Plan

Source: NCWM Board of Directors

- (a) Develop and maintain a curriculum plan in cooperation with our partners that establishes uniform and consistent training objectives for weights and measures professionals in all fields and at all levels from novice to seasoned veteran.
- (b) The objectives should represent a consensus of our partners and should be organized by scope, sequence, and level of complexity to assist those developing the curriculum materials.

Discussion: Working groups should be utilized to ensure expertise.

401-5 I Curriculum Coordination

Source: NCWM Board of Directors

- (a) Coordinate the development of curriculum materials to be used in the delivery of training (i.e., testing guides, digital presentations, slide shows, lesson plans, etc.) using a variety of formats (e.g., from self-study to traditional instruction).
- (b) Consider creating a network of interested parties to establish priorities, share training resources, foster cooperation to reduce redundancy, and promote uniformity and consistency.

401-6 I Training Innovations

Source: NCWM Board of Directors

Gather and share information from trainers on highly effective techniques, visual aids, etc., that have been used to facilitate learning.

401-7 I Instructor Improvement

Source: NCWM Board of Directors

Coordinate activities to improve the competence of instructors and the uniformity of delivery of the curriculum.

401-8 I Certification

Source: NCWM Board of Directors

Develop an NCWM certification program based on the curriculum plan with measurable levels of competency.

Discussion: To receive certification weights and measure officials must pass written examinations. Certificates should be presented at the NCWM Annual Conference to administrators and weights and measures officials that have completed and passed prescribed examinations. Chairman Dennis Ehrhart expressed his support and offered funds from the NCWM to make this training possible.

401-9 I NCWM Training

Source: Western Weights and Measures Association (WWMA)

Recommendation: The WWMA recommended that the NCWM should establish and maintain a database of classroom training programs completed by individual weights and measures officials where the training used NCWM courses (or equivalent) and certified trainers. The NCWM should also issue certificates to individual weights and measures officials for course completion.

Background: The WWMA A&P Committee recognized the value of formal training for inspection staff and the credibility these programs provide. Some jurisdictions have formal licensing programs for weights and measures staff, while others rely on informal and less well-documented programs. The WWMA A&P Committee recognized that NCWM is a logical entity to provide standardized training and accreditation programs.

Discussion: The Professional Development Committee acknowledges the comments from WWMA. They will be taken under advisement during the formulation of this committee. Professional Development Committee members would like to know if NIST will participate in the NCWM training and certification program and would like to see a NIST liaison added to the committee.

402 PROGRAM MANAGEMENT

402-1 I Voluntary Quality Assurance Assessment

Source: NCWM Board of Directors

The Committee will continue to promote the development of quality programs through the Voluntary Quality Assurance Assessments (VQAA). The Committee would like to see more participation in the VQAA.

The Committee discussed the use of the ISO/IEC/EN 17025 *“General Requirements for the Competence of Calibration and Testing Laboratories”* for state and local field enforcement programs. The Committee concluded that the ISO 17025 standard does not apply to state and local field enforcement programs and recommends that the National Conference on Weights and Measures develop its own certification standards for state and local field enforcement programs.

402-2 I NCWM Associate Membership Scholarships

Source: NCWM Board of Directors

If funding is available, oversee a system to evaluate applications and award scholarships. Provide a report on the scholarships awarded each year.

402-3 I Safety Awareness

Source: NCWM Board of Directors

Continue work to identify safety issues in the weights and measure field. Coordinate activities to increase safety awareness.

Recommendation: This is an area where activities should be increased to promote safety awareness.

Discussion: Chairman Dennis Ehrhart acknowledged that the Voluntary Quality Assurance Assessment, NCWM Associate Membership Scholarships, and Safety Awareness are carryover items and determined that the Professional Development Committee should concentrate primarily on the training.

Kenneth Deitzler, Pennsylvania, Chairman

Celeste Bennett, Michigan

Jerry Buendel, Washington

Steve Hadder, Florida

Agatha Shields, Franklin County, Ohio

Stuart Strnad, Texas

C. Gardner, Suffolk County, New York, Safety Liaison

John Moore, Lore Consulting, Associate Membership Committee Representative

Professional Development Committee

Appendix A

National Training Curriculum Outline

Weights & Measures General/State Policies	Market Practices Laws and Regulations NIST Handbook 130	General Devices NIST Handbook 44	Weights & Measures Administration	Laboratory Metrology
<ul style="list-style-type: none"> State Administrative Issues <ul style="list-style-type: none"> Completion of administrative forms Review of rules and policies History Roles in Society Need for W&M System of W&M W&M in U.S. & Your State Metrology State Laws Relationship to National & International W&M Associations <ul style="list-style-type: none"> Regional, State, Federal Federal Agencies 	Price Verification <ul style="list-style-type: none"> Terminology NIST H-130 Specifications & Requirements Safety Support Equipment General Enforcement Guidelines 	Test Purchases <ul style="list-style-type: none"> Examination Specifications EPO Purchasing Process Check for Validity of Purchase Field/Practical Exercises 	E-Commerce <ul style="list-style-type: none"> Terminology NIST H-130 Requirements & Specifications Packaging & Labeling Regulations Exemptions Indirect Sale of Random Packages 	Fuel Quality <ul style="list-style-type: none"> Terminology NIST H-130 Specifications & Requirements Uncertainty Safety Support Equipment Sampling General Enforcement Guidelines
Commodities General <ul style="list-style-type: none"> Terminology Wet/Dry Tare NIST H-133 Specifications & Requirements Uncertainty Safety Support Equipment General Enforcement Guidelines 				
Standard Pack (WT) <ul style="list-style-type: none"> Examination Specifications Contents of EPO <ul style="list-style-type: none"> Test Equipment Examination Test Specifications Evaluation Field/Practical Exercises 	Random Pack (wt) <ul style="list-style-type: none"> Examination Specifications Contents of EPO <ul style="list-style-type: none"> Test Equipment Examination Test Specifications Evaluation Field/Practical Exercises 	Sale by Volume <ul style="list-style-type: none"> Examination Specifications Contents of EPO <ul style="list-style-type: none"> Test Equipment Examination Test Specifications Evaluation Field/Practical Exercises 	Sale by Count <ul style="list-style-type: none"> Examination Specifications Contents of EPO <ul style="list-style-type: none"> Test Equipment Examination Test Specifications Evaluation Field/Practical Exercises 	

General Devices NIST Handbook 44

- Terminology
- NIST Handbook 44
- Fundamental Consideration
- Uncertainty
- Safety
- Support Equipment
- Seals
- Supports
- General Enforcement Guidelines

Weighing Devices

- Terminology
- Scale Types
- Technology
- Suitability
- User Requirements
- Operation/Markings
- Scale Classes & Tolerances
- Basic Scale Test Procedures
- Basic Inspection

Measuring Devices

- Terminology
- Measuring Device Types
- Technology
- Suitability
- User Requirements
- Operation & Markings
- Tolerances for LMDs
- Basic LMD Test
- Basic LMD Inspections

Other Devices

- Terminology
- Other Device Types
- Technology
- Suitability
- User Requirements
- Operation & Markings
- Tolerances for LMDs
- Basic Test
- Basic Inspections

Retail Computing Scales

- Common traits
- Examination Specifications
- Test Equipment
- Examination, Installation, & Maintenance
- Test Specifications
- Evaluation
- Field/Practical Exercises

Platform Scales

- Common traits
- EPO
 - Examination Specifications
 - User Requirements
 - Suitability
 - Test Equipment
 - Examination, Installation, & Maintenance
 - Test Specifications
 - Evaluation
- Field/Practical Exercises

Vehicle Scales

- Common traits
- Contents of EPO
 - Examination Specifications
 - User Requirements
 - Suitability
 - Test Equipment
 - Examination, Installation, & Maintenance
 - Test Specifications
 - Evaluation
- Field/Practical Exercises

Vehicle Scales Advanced

- Initial Verification.

Railroad Track

- Common traits
- Contents of EPO
 - Examination Specifications
 - User Requirements
 - Suitability
 - Test Equipment
 - Examination, Installation, & Maintenance
 - Test Specifications
 - Evaluation
- Field/Practical Exercises

Hopper

- Common traits
- Contents of EPO
 - Examination Specifications
 - User Requirements
 - Suitability
 - Test Equipment
 - Examination, Installation, & Maintenance
 - Test Specifications
 - Evaluation
- Field/Practical Exercises

Point-of-Sale Scales <ul style="list-style-type: none"> • Common traits • Examination Specifications • User Requirements • Suitability • Test Equipment • Examination, Installation, & Maintenance • Test Specifications • Evaluation • Field/Practical Exercises 	Precision Scales Class I/II <ul style="list-style-type: none"> • Common traits • Examination Specifications • User Requirements • Suitability • Test Equipment • Examination, Installation, & Maintenance • Test Specifications • Evaluation • Field/Practical Exercises





